

# PATENT COOPERATION TREATY

TRANSLATION

From the  
INTERNATIONAL SEARCHING AUTHORITY

## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing (day/month/year) **See form PCT/ISA/210**

Applicant's or agent's file reference

**G160001OLAW**

**FOR FURTHER ACTION**

See paragraph 2 below

International application No.

**PCT/JP2006/300711**

International filing date (day/month/year)

**19.01.2006**

Priority date (day/month/year)

**20.01.2005**

International Patent Classification (IPC) or both national classification and IPC

**F16H53/02**

Applicant

**OTICS CORPORATION**

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP	Date of completion of this opinion	Authorized officer
Facsimile No.		Telephone No.

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International application No.

PCT/JP2006/300711

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:  
☒ the international application in the language in which it was filed  
☐ the translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (Rule 12.3(a) and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material  
☐ on paper  
☐ in electronic form
  - c. time of filing/furnishing  
☐ contained in the international application as filed  
☐ filed together with the international application in electronic form  
☐ furnished subsequently to this Authority for the purposes of search
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/JP2006/300711

**Box No. V** Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

**1. Statement**

Novelty (N)	Claims	3, 4	YES
	Claims	1, 2, 5	NO
Inventive step (IS)	Claims	3	YES
	Claims	1, 2, 4, 5	NO
Industrial applicability (IA)	Claims	1-5	YES
	Claims		NO

**2. Citations and explanations:**

Document 1: JP 2001-293531 A (Toyota Motor Corp.), 23 October 2001, paragraph [0047], fig. 9  
(Family: none)

Document 2: JP 2002-257149 A (Toyota Motor Corp.), 11 September 2002, paragraph [0024], fig. 1-3  
(Family: none)

Document 3: JP 2000-329214 A (Mitsubishi Materials Corp.), 30 November 2000, paragraph [0015], fig. 3, 5 (Family: none)

The inventions set forth in claims 1 and 5 lack novelty and do not involve an inventive step in the light of either of documents 1 and 2 cited in the international search report. Documents 1 and 2 disclose inventions which are the same as the inventions set forth in claims 1 and 5.

The invention set forth in claim 2 lacks novelty and does not involve an inventive step in the light of document 1 cited in the international search report. Document 1 discloses an invention which is the same as the invention set forth in claim 2.

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Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

The invention set forth in claim 4 does not involve an inventive step in the light of documents 1 and 3 cited in the international search report. A feature wherein the hardness of the inner surface of a cam piece inner hole is greater than that of a shaft is disclosed in document 3.

The invention set forth in claim 3 is novel and involves an inventive step relative to the documents cited in the international search report. Said documents neither disclose nor suggest a feature wherein larger-diameter bypass parts are formed at the portions of the inner hole which are positioned inside where the circular outer peripheral surface of the cam piece graduates into the cam lobe part, so that when the cam piece is affixed to the drive shaft it does not make contact with the outer peripheral surface of the drive shaft.